ABSTRACT:

What is described is a sensor array with at least two sub-bridges, which are coupled together to form at least one Wheatstone bridge and which are equipped, in each of the sub-bridges, with at least two magnetoresistive sensor elements, wherein the sensor elements are sensitive to the magnetic field strength of an applied magnetic field along a measurement direction, and the sub-bridges are designed to deliver a measurement signal as a function of a field component of the magnetic field, designated a measurement field, measured in the measurement direction, wherein, further, in a first of the sub-bridges at least two of the sensor elements exhibit barber pole structures with differing alignments, in a second of the sub-bridges at least two of the sensor elements are designed without barber pole structures, and the measurement signals of the first sub-bridge at least largely coincide with the measurement signals of the second sub-bridge in a specified range of values around a zero point of the magnetic field strength of the measurement field.

A sensor array with a further improved interference immunity against magnetic interference fields is thereby created.

Fig. 2